

# ***“The Big 6”***

## **Livestock Grazing Analysis**

**Resource Report for**

**Livestock Grazing**

**on**

**Little Horn Watershed Allotments**

**Medicine Wheel Paintrock District**

**Fisher Mountain C&H**

**Sage Basin C&H**

**Little Horn C&H**

**Wyoming Gulch C&H**

**Red Springs C&H**

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***/s/ Cliff Winters March 4, 2010***

## Introduction and Overview

This discussion addresses Livestock Grazing within the Medicine Wheel Paintrock Ranger District's (MWPRRD) portion of the Little Horn Watershed. It describes the affected environment and environmental consequences of alternatives to the proposed action relative to issues that have been developed as described in detail in Chapter 1. Issues identified as key and non-key will be used to compare the effects of the actions for each alternative.

This Livestock Grazing Specialist Report will discuss the affected environment and identify effects of actions to 5) Socio/Economic issues.

This report is arranged to describe the affected environment and environmental consequences that apply to all allotments in the described area (Watershed-wide) and those that apply to specific allotments only (Allotment specific).

Affected environment descriptions and effects analyses were arrived at through review of MWPRRD 2210, 2230, and 2240 files, review of the Revised Forest Plan, and other handbook, manual, and internal reference material, along with personal experience of the authors. The analysis included review of livestock grazing reference material from the early 1900's, but focused primarily on the past 20 years. Spatial context was the project area, with the exception of cumulative effects.

Table 3-1 lists Connected Actions, Past, Present, and Foreseeable Activities Relevant to Cumulative Effects Analysis.

Legal and Administrative Framework for this analysis:

- The Bighorn National Forest Land and Resource Management Plan (Forest Plan) revised 2005.
- FSM2200 – this manual summarized laws and regulations governing rangeland management and forest planning.
- FSM2600 – this manual summarizes laws and regulations governing fish and wildlife management and forest planning.
- R-2 Rangeland Analysis and Management Training Guide
- FSH 2209.13 – Grazing Permit Administration Handbook
- FSH 2609.13 – Wildlife and Fisheries Program Management Handbook
- Code of Federal Regulations (CFR) 36
  - ♦ 219 Planning
  - ♦ 222 Range Management
  - ♦ 241 Fish and Wildlife
- National Forest Management Act (NFMA) of 1976 – this act identifies information requirements concerning NFS grazing and browsing resources.
- Section 8 of the Public Rangelands Improvement Act (PRIA) of 1978 – this section allows for consultation and cooperation in the development and execution of allotment management plans for grazing permits.
- Reorganization Act of 1994 amended the 1987 Agricultural Credit Act to provide for mediation of grazing permit cancellation and suspension actions as a part of the existing administrative appeals process.
- Section 504 of the Rescissions Act of 1995, Public Law 104-19, directs the Forest to complete site-specific National Environmental Policy Act Analysis and decisions on allotments

## **Affected Environment: Little Horn Watershed –wide Medicine Wheel Paintrock District**

### **Issue 5) Socio/Economic**

Grazing by domestic livestock has occurred on rangelands within the project area since the late 1800s. The industry has been an integral part of the local community economy, development, and lifestyle. For the livestock producers, summer forage on the Little Horn Watershed Allotments has represented a vital part of their total forage program. Term grazing permits for livestock grazing, normally issued for 10-year periods, are in effect on most, but not all allotments. Permit holders pay a grazing fee for use of forage each year (set by a formula prescribed by law and executive order) and are required to abide by terms and conditions of their permit which address livestock and land ownership, rangeland improvements, resource concerns, management practices and requirements, etc. Implementation of required management practices and the long-term effects of livestock use on the environment are monitored, and adjustments are made, as needed, to assure compliance with permits and to address other resource concerns.

General desired rangeland vegetation conditions are described in the Forest Plan and are made more specific for individual allotments through the allotment level NEPA analysis and decision. Allowable forage utilization levels, along with other standards and guidelines, are developed in the analysis document as design criteria and are then stipulated on a site-specific basis. Key areas are identified for implementation monitoring. When livestock graze to allowable utilization levels or otherwise meet required standards, livestock are to be moved from the pasture by permit holders, or removed from the allotment for the season in the case of pastures grazed last in rotation. The Forest Service Region 2 Rangeland Analysis and Management Guide provides information on documenting rangeland monitoring, inventory, analysis, and management activities.

Livestock grazing (and in some instances, grazing by large wild ungulates) tends to have the greatest influence on the following, which occur within the project area:

- Low-gradient riparian and wetland areas.
- Fine textured soils on relatively low slopes with a minimal amount of rock, cobble, or boulders.
- Open canopy or low shrub vegetation types.
- Areas near available water (although there may be some avoidance of standing water areas).

The magnitude of the influence depends on the timing of use, the kind of livestock (sheep vs. cattle), the intensity of grazing use, the duration and frequency of grazing, and the associated management practices, including the level of permittee interest and involvement. Stocking levels by themselves are not a critical management factor but are an outcome of implementation of design criteria for timing, intensity, duration and frequency. Stocking rates may be adjusted annually or permanently depending on resource conditions and monitoring findings and permittee effectiveness in implementing design criteria.

Some recreational horse use occurs on these allotments. Use of ATV's by the recreating public is common in most allotments. These uses can result in forage use and impacts to streams and vegetation that conflict with objectives and plans of term grazing permit holders. One common effect from recreation use occurs when Forest visitors open gates along National Forest System roads and trails to pass through and then do not close them. This occurrence allows livestock to drift into pastures, allotments, roadways, or other areas where they are not intended to be and often results in unplanned livestock use and disruption of planned management.

Grazing permits require that stockmen keep livestock in designated areas. To comply, and to minimize the task of gathering and returning livestock, a rapid response is necessary, and can incur considerable expense to the responsible permit holder. This issue is of particular concern where access is limited and response time by permittees to livestock concerns can be very time-consuming. Use of ORV's for recreation has increased immensely in recent years throughout the watershed, accelerating this problem and making livestock management throughout this area more difficult. In some cases, cattleguards can replace gates, but materials, installation, and maintenance are costly.

Current allotment management on each of the 5 allotments in this report is summarized in the following Allotment specific discussions and documents: Attachment B Permitted, Attachment B1 authorized use data, Attachment B3 actual use data, Attachment C pasture sequence.

## **Affected Environment: Little Horn - *Allotment Specific***

### **Issue 5**

#### **Fisher Mountain C&H Allotment**

The Fisher Mountain C&H Allotment has been permitted 10 horses from June 1st to October 31st since its establishment prior to 1956. The current permittee, Little Bighorn Ranch, acquired the permit in 1973 and used permitted numbers and season until the past three years when they have taken non-use. There are only two improvements on the allotment to aide in proper management. They are two drift fences on the forest boundary used to keep the livestock in the correct pasture area. The Allotment has one pasture that is grazed season long. The Fisher Mountain C&H Allotment is a very remote allotment to access, with the best access from the private property below.

#### **Little Horn C&H Allotment**

The present Little Horn C&H allotment was formed in 1983 when the Wagon Box S&G and Burnt Mt. S&G sheep allotments were added to the former Little Horn C&H. Wagon Box S&G and Burnt Mt S&G were traditionally grazed by sheep since at least 1938, with 915 sheep and 1009 mature sheep respectively. The original Little Horn C&H allotment was always grazed by cattle. In 1983 when the two sheep allotment were combined with Little Horn C&H, a six pasture deferred rotation was implemented on the west side of the allotment (Fuller Ranch and Charles Fuller), and a two pasture deferred rotation was implemented on the east side (Kern's). In 1984 and 1985, Range Analysis was conducted on the allotment, an Analysis of the Management Situation (AMS) was written up, and in 1986 a new Allotment Management Plan was put into place. The AMS described issues with the west rotation not having adequate pasture separation and as a result, the riparian zones were receiving heavy, season long use. In 1986, with a new AMP in place, fences were constructed to help improve control of livestock and make adequate pasture boundaries. A four pasture deferred rotation was developed on the west side, with two other pastures dedicated for trailing and gathering of cattle. The grazing strategy was to use one herd of cattle on the west side, using a deferred rotation.

The grazing strategy for the two pastures remaining (Parks and East Burnt) on the east side was to use a second herd of cattle, but the two pastures were authorized to be used in conjunction with the adjacent Lake Creek C&H allotment rotation. One pasture would be used early when they trailed up to Lake Creek C&H, and the other would be used late when cattle were trailed off from Lake Creek C&H. They

would be switched the following year. The permittee on the east rotation (Kern's) also has a special use permit to outfit and guide, and uses guest trips to help with management of the livestock.

In 1990, Fuller Ranch waived their permit and a new permittee (Holding) joined Charles Fuller on the west rotation of the Little Horn C&H allotment. In 1996, the two permittees on the west rotation requested to run separately due to different management styles and presented a proposal. This basically became a two pasture deferred rotation for each permittee, and each was authorized to trail on and off through the Lower Little Horn Pasture. This was authorized on a trial basis and has been run separately since. Sunlight Ranch's rotation has been a true two pasture deferred rotation. The Fuller rotation has been tried as a 4 pasture deferred rotation using the Trail pasture as two separate pastures; however this has not been effective as there is no permanent barrier to adequately control livestock, and riding has not been effective. As a result, cattle drift back and forth between both sides of the river in the Trail Pasture and areas continue to receive additional use when this happens. The Horse Pasture has also been treated as a separate pasture in this rotation.

Monitoring points have been established in aspen and riparian areas in the west rotation, and inspections have shown improvements in some areas since the split in 1996. Kern's has continued to run the east pastures with Lake Creek C&H.

Annual utilization levels have not been consistently met on the allotment in every year, as shown in allotment field notes and data collected, however with the construction of the fences in 1986, livestock control has been more effective. One cow camp is associated with the Little Horn C&H allotment and is available and used by the permit holders for administration of the term grazing permits. Kern's has a cow camp on the Lake Creek C&H allotment that he uses for permit administration as well.

The allotment is well watered on the west side with natural streams, springs, and seeps scattered throughout, and there are only two water developments at present. The east rotation does not have as much natural water, particularly in the lower end of the Parks. This pasture does have two water developments; however one is poorly located and has been proposed for relocation. The second one does not produce enough water to keep up with the cattle. The permittee has proposed developing additional water at the lower end to help with livestock distribution. In the spring, cattle tend to go to the top of the Parks Pasture and end up hanging on the fence line which causes heavy use. In the fall, the reverse happens and they pile up on the lower end of East Burnt or the Parks Pastures with the same problems. Riding has not been totally effective.

A herd of elk summer in the area and are seen moving between Medicine Mountain C&H and the Wagon Box and Duncom Creek areas of the allotment. Permittees have called to inform us of use by wildlife occurring prior to their entering a pasture, and when looking at the areas they are generally small in size (a few acres) and lighter use.

The Little Horn C&H allotment falls within an area that receives a lot of recreational use. The Little Horn Trail runs through this allotment and is used as both a stock drive and recreational trail throughout the spring, summer, and fall. The Bighorn Mountain Wild and Scenic Trail Run occurs annually on the third weekend in June, which is about the same time that cattle have traditionally been trailed up the stock drive. Over the past several years, permittees have delayed trailing livestock up this trail until after the run, due to either a delay due to range readiness issues, and/or wanting to avoid any conflicts with the event. Large organized horse groups use the trail annually as well, and ATVs/motorcycles are authorized to drive down the first 8 miles or so too. In addition, a lot of vehicle and ATV traffic occurs on the road to Wagon Box and Little Horn River. Two outfitter guides have spike camps permitted within the allotment. Permittees have spoke of gates being left open, and difficulties in keeping cattle distributed due to the amount of public in the area.

Stocking rates based on current permitted numbers and season on Little Horn C&H is considered relatively high. On paper this number reflects a high stocking rate, however actual stocking has been at a lighter level on the various permits. This is due to range readiness delays, meeting use levels, and in some instances permittee convenience. Livestock have not turned out to the west side of the allotment until at least 10 days later than the permitted on date of 6/16, both voluntarily to coordinate with the trail run, and also due to range readiness. The east side has had a permitted on date of 6/26 since about 1986. The 1986 AMP recommended a 6/26 on date, however only one of the permits ever appeared to have this date changed.

A 10-year review permitted, Authorized, and actual use was conducted as part of this analysis and concluded:

Authorized use has been consistently lower than permitted since year 1999. Reduced use has been partly due to the separate herds and associated management, partly due to drought, and also monitoring of annual use levels.

### **Red Springs C&H Allotment**

Red Springs C&H is permitted to 464 Cow/calf pairs from July 1st to October 30<sup>th</sup> on 5,696 suitable acres of the 21,039 total acres. Current actual use records indicate that use has been for less than the amount permitted.

The Red Springs C&H Allotment is a combination of the original Red Springs C&H, and in 1983 the incorporation of the Mann Creek S&G which was historically managed as a separate sheep allotment.

The Red Springs C&H allotment is bounded by the Montana Stateline and numerous canyons. It is severely dissected by Pumpkin Creek and to a lesser extent by Cub Creek and Iron Stake Draw. Red Springs C&H is on the northeastern portion of the Medicine Wheel / Paintrock Ranger District, Bighorn National Forest, Sheridan County, Wyoming.

Historic use of the Red Springs C&H Allotment was season long grazing with high stocking rates and distribution problems. In 1996 Peter Manigault recognizing the issues on the Red Springs C&H Allotment waived his permit for 115 mature cattle from 7/1 to 9/15 back to the Forest Service.

Current management on the allotment has consisted of a deferred rotation grazing system. There are seven pastures on the allotment. The Face pasture receives light early and light late use annually. And the Deer Basin and Crater Ridge Pastures are used together and the Cub Creek and West Bend Pastures are used together.

Salt is located to help draw livestock away from riparian and other favored areas, and permit holders regularly move cattle out of these areas and into other areas of available forage to avoid overuse. Fence enclosures are also utilized to aide in the protection of spring sources, which are limited, on the allotment. Division fences have been constructed to aid in maintaining pasture rotations and allotment separation.

## **Sage Basin C&H Allotment**

The Sage Basin allotment is located on the high divide between the Little Horn and West Little Horn drainage, on the northeastern portion of the Medicine Wheel / Paintrock Ranger District, Bighorn National Forest, Sheridan County, Wyoming.

Sage Basin C&H permitted use is 200 cow/calf pairs from July 5th to September 30th on 1,734 suitable acres of the 5,144 total acres. Current actual use records indicate that use has been for less than amount permitted.

Authorized use records indicate use has slightly varied over the past. In 1933 to 1958 the permitted use was 270 cow/calf pairs from June 16th to September 30th. By 1959 actual use records indicate use was around 300 yearlings from June 21st to September 5th and 20 cow/calf pairs from June 16th to September 30th. In 1966 permitted livestock changed to 300 yearlings from June 21st to September 5th and 40 cow/calf pairs from July 1st to October 15, and in 1987, the number changed to what is currently permitted (see above).

Current management on the allotment has consisted of a four pasture deferred rotation grazing system. Salt is located to help draw livestock away from riparian and other favored areas, and permit holders regularly move cattle out of these areas and into other areas of available forage to avoid overuse. Fence exclosures are also utilized to aide in the protection of spring sources on the allotment. Division fences have been constructed to aid in maintaining pasture rotations and allotment separation. A cabin and set of corrals is also available on the allotment which aides in appropriate management.

## **Wyoming Gulch C&H Allotment**

Wyoming Gulch C&H is permitted to 225 Cow/calf pairs from July 6th to September 30th. Current authorized use records indicate that use has been for the amount permitted.

The Wyoming Gulch C&H Allotment is a combination of the original Bald Mountain S&G, Rooster Hill S&G, and Half Ounce S&G which were historically managed as separate sheep allotments. The conversion from sheep to cattle was done on a trial basis for the first time on Rooster Hill and Bald Mountain Units in 1984. This change was made at the permittee request and for their personal convenience. Initial stocking rates were based upon the primary suitable range for cattle (meadow and basin sites on Bald Mountain and Rooster Hill Units, and Little Horn Meadows on Half Ounce Unit) and at 35% use. Half Ounce Unit was added in 1987, and Wyoming Gulch C&H was officially formed when the permit was renewed. From 1988 until present the authorized use indicates that the permitted 225 cow/calf pairs have been ran for full season from July 6th to September 30th.

The Wyoming Gulch C&H Annual Operating Plans called for continuous season long grazing in Rooster Hill and Bald Mountain Pastures from 1984 through 1986. In 1987 and 1988 when the Half Ounce Pasture was added, a three pasture rotation was initiated on Wyoming Gulch C&H, and was used until 1995. This required use of a full time rider to keep cattle in the appropriate pasture, because there is no

fence between the Rooster Hill and Bald Mountain pastures. The Annual Operating Plan for the 1995 grazing season authorized the combined use of the Bald Mountain and Rooster Hill Pastures. This resulted in a 2 pasture deferred rotation for the Wyoming Gulch C&H allotment. The 2 pasture rotation has been authorized from 1995 until present. Pastures are grazed each season, and then deferred annually.

Salt is located to help draw livestock away from riparian and other favored areas, and permit holders regularly move cattle out of these areas and into other areas of available forage to avoid overuse. Division fences have been constructed to aid in maintaining pasture rotations and allotment separation. A cabin and set of corrals is also available on the Wyoming Gulch allotment which aides in appropriate management.

## **Environmental Consequences: Little Horn - *Watershed Wide Medicine Wheel Paintrock District***

### ***Issue 5) Socio/Economic***

Alternative 1, No action no grazing: Direct and Indirect effects:

-The No Grazing alternative would eliminate domestic livestock grazing on all allotments within the Little Horn Watersheds. Existing permits would be cancelled with the one year notice as specified in FSH 2209.13 section 16.13 and 36 CFR 222.4(8). New term grazing permits would not be issued. Domestic livestock would not be used to manipulate vegetative conditions in this portion of the Forest. Maintenance of improvements by grazing permittees would not be necessary, required, or completed. There would be no need to apply livestock grazing standards and guidelines to these allotments.

-Grazing permittees may be reimbursed for their portion of range structural improvements on the allotment (36 CFR 222.6). Fencing, spring developments, and cow camps not needed would need to be removed.

-All AUMs permitted in these watersheds would be lost from the total permitted on the Bighorn National Forest. There would be no livestock grazing contributing to the local economy, community lifestyle, tradition, or culture. Part of objective 2, strategy 1 of the revised Bighorn National Forest Plan would not be met, while part would. ("Provide forage for livestock at a level that strives to maintain or exceed the year 2004 permitted stocking level of 113,800 Animal Unit Months (AUMs), while recognizing that stocking levels may be adjusted through the implementation of allotment management plans (AMPs) and administration of grazing permits."). Effects of this loss of AUMs would extend from the individual permits on each Allotment to the community as a whole.

Alternative 2, Current Management: Direct and Indirect effects:

-Guidelines direct that in areas where desired conditions are not being met forage use standards are to be adjusted until a satisfactory trend results. Areas currently identified are very few and are described in the Rangeland Vegetation specialist report. (Table 3: Key areas). In these cases, in alternative 3, adjustments in management would likely be authorized, but under alternative 2, no additional structure could be completed. Under Alternative 2, additional management adjustments such as riders or changes in season of use are more likely to result in fewer AUMs being grazed or greater expense on part of term permit holder.

-Should conditions deteriorate in both Alternative 2 and 3, more strict standards would likely result in shorter seasons of use and loss of AUMs. This loss would be realized from the total permitted on the Bighorn National Forest. Part of objective 2, strategy 1 of the revised Bighorn National Forest Plan would



not be met, while part would. (“Provide forage for livestock at a level that strives to maintain or exceed the year 2004 permitted stocking level of 113,800 Animal Unit Months (AUMs), while recognizing that stocking levels may be adjusted through the implementation of allotment management plans (AMPs) and administration of grazing permits.”). Effects of this loss of AUMs would extend from the individual permit to the community as a whole. Such loss is more likely in Alternative 2 than alternative 3 because of adaptive planning options. AUM loss is further described in the allotment specific discussion.

- Implementation of alternative 2 would result in continuation of current forage use and grazing strategies (exceptions described below). Revised Forest Plan guidelines and Bighorn National Forest Vegetation Grazing Guidelines would continue to be implemented.

- Existing range improvements would be maintained to standard as specified in the term grazing permit, but no new improvements would be added without a separate NEPA analysis and decision.

Alternative 3, Adaptive management: Direct and Indirect effects:

- Where desired conditions are not being met under alternative 3, additional structures could be completed as part of the adaptive actions proposed. The loss of AUMs that may have occurred in these cases in alternative 2 (such as a result of additional management adjustments such as riders or changes in season of use) would not occur in alternative 3. AUM differences are further described in the allotment specific discussion.

- Continued deterioration of rangeland conditions would be less likely to occur under alternative 3 than alternative 2, reducing the likelihood of loss of AUMs described above.

- Existing range improvements would be maintained to standard as specified in the term grazing permit. New improvements proposed as part of the adaptive options would be available and implemented.

Cumulative effects for all alternatives:

- Livestock have had effects on the project area allotments at the same time as many other uses, and some effects are cumulative. Motorized and non-motorized recreation and roads result in soil disturbance and erosion. As noted in the soils section, there are likely similar effects from livestock. Although the effects from livestock are too small to quantify, they do cumulatively add to effects from roads, and vehicular use. Wildlife and livestock both impact vegetation by removing forage. Historically high stocking levels of livestock, and at times big game, have had a lasting effect on vegetative cover, composition and overall health. Those effects have declined over time but are still present to some degree. Removal of fine fuels vegetation by livestock or wildlife can also have the cumulative effect of reducing wildfire occurrence and rate of spread (see wildfire section). Fire suppression possibly combined with removal of competing herbaceous vegetation, has resulted in conifer encroachment, and a reduction in meadow size (available forage) in some areas that is expected to increase over time. Past timber harvest areas provided transitory rangeland at one time but this effect has largely passed with increasing conifer cover. Previous stocking rates may have been based to a degree on the availability of that transitory forage resource.

- Livestock grazing in this area today is complicated by factors such as the allocation of forage resources between livestock and wildlife and the effects of their activities, fisheries, and water quality; considerations necessary due to wildfire and prescribed fire management, recreation activities that result in gates being left open, forage being removed, livestock being poorly distributed, or impacts to the resource being unfairly attributed to livestock grazers. Most of

these factors add to complexity and expense of the livestock operation that chooses to utilize forage in the project area as opposed to other sources of forage. Combined, these factors add expense to the permit, and may result in reduction in livestock grazing over time. However, private forage resources are very scarce and expensive in the local area. Forage availability on the National Forest provides a critical need for permit holders overall operations.

-Livestock management is generally considered more difficult on National Forest lands than on private lands for reasons described above. In addition, the business of livestock management is subject to factors most often not under the control of livestock operators, such as national security, tourism, land values and subsequent subdivision of base ranches, retirement of 'baby-boomers', labor prices and availability, foreign markets and calf prices, USDA budgets and farm programs, fuel prices, predator control, social values, federal policy, etc.

-Authorized use on the project area allotments has generally been lower than permitted and is likely to remain so. Recent NEPA decisions (e.g., Tongue, Piney, and Battle Park AMPs) have projected a decline in permitted AUMs. Alternative 1 would add the most to the trend of decreasing the number of AUMs grazed on the Bighorn NF, with Alternative 3 potentially adding the least, to the extent that the design criteria and adaptive measures are successful at meeting desired conditions. Improved forage production by reducing sagebrush densities and improved distribution opportunities created by the proposed water improvements and other structural improvements should allow permitted AUMs under Alternative 3 to remain higher than under Alternative 2.

-Expectations are that the impact of recreation uses in the project area will increase as the population of local communities increases, and as more people nationwide continue to seek places like the Bighorn to recreate. ATV use in particular has seen a dramatic increase recently that is expected to continue (See Specialist Report for Recreation).

-Use of prescribed fire will likely increase in coming years due to a nationwide emphasis on fuels reduction. As described above, this can result in short term expenses and long-term benefits to livestock grazing.

-Cumulative effects under alternative 3 will be less than alternative 2 due to the adaptive management measures available.

## **Environmental Consequences: Little Horn Watershed - *Allotment Specific***

### **Fisher Mountain C&H Allotment**

#### ***Issue 5) Socio-Economics***

Alternative 1 No action no grazing: Direct and Indirect effects:

-No additional effects were identified beyond those described in the allotment-wide discussion above.

Alternative 2 Current Management: Direct and Indirect effects:

-No additional effects were identified beyond those described in the allotment-wide discussion above.

Alternative 3 Adaptive management: Direct and Indirect effects:

-No additional effects were identified beyond those described in the allotment-wide discussion above.

Cumulative effects for all alternatives:

-No additional effects were identified beyond those described in the allotment-wide discussion above.

**Little Horn C&H Allotment****Issue 5) *Socio-Economics***

Alternative 1 No action no grazing: Direct and Indirect effects:

-No additional effects were identified beyond those described in the allotment-wide discussion above.

Alternative 2 Current Management: Direct and Indirect effects:

-No additional effects were identified beyond those described in the allotment-wide discussion above.

Alternative 3 Adaptive management: Direct and Indirect effects:

-Additional water developments included as options in adaptive planning would provide opportunities for time and energy savings on the part of the permittee, and increased economic efficiency. Livestock distribution would be improved. This would add to flexibility in management and a greater likelihood of meeting the portion of Forest Plan Strategy #1 for livestock grazing that states “Strive to authorize grazing for domestic livestock that will provide stable livestock numbers and season of use.” (Revised BNF Plan page 1-8). It would also support the portion of that strategy that directs management to strive to maintain or exceed the 2004 permitted stocking level of AUMs Forest wide.

Cumulative effects for all alternatives:

-No additional effects were identified beyond those described in the allotment-wide discussion above.

## **Red Springs C&H Allotment**

### **Issue 5) *Socio-Economics***

Alternative 1 No action no grazing: Direct and Indirect effects:

-No additional effects were identified beyond those described in the allotment-wide discussion above.

Alternative 2 Current Management: Direct and Indirect effects:

-No additional effects were identified beyond those described in the allotment-wide discussion above.

Alternative 3 Adaptive management: Direct and Indirect effects:

-No additional effects were identified beyond those described in the allotment-wide discussion above.

Cumulative effects for all alternatives:

-No additional effects were identified beyond those described in the allotment-wide discussion

**Sage Basin C&H Allotment****Issue 5) *Socio-Economics***

Alternative 1 No action no grazing: Direct and Indirect effects:

-No additional effects were identified beyond those described in the allotment-wide discussion above.

Alternative 2 Current Management: Direct and Indirect effects:

No additional effects were identified beyond those described in the allotment-wide discussion above.

Alternative 3 Adaptive management: Direct and Indirect effects:

- Additional water development included as an option in adaptive planning would provide opportunity for time and energy savings on the part of the permittee, and increased economic efficiency. Livestock distribution would be improved. This would add to flexibility in management and a greater likelihood of meeting the portion of Forest Plan Strategy #1 for livestock grazing that states “Strive to authorize grazing for domestic livestock that will provide stable livestock numbers and season of use.” (Revised BNF Plan page 1-8). It would also support the portion of that strategy that directs management to strive to maintain or exceed the 2004 permitted stocking level of AUMs Forest wide.

Cumulative effects for all alternatives:

-No additional effects were identified beyond those described in the allotment-wide discussion above.

## Wyoming Gulch C&H Allotment

### *Issue 5) Socio-Economics*

#### Alternative 1 No action no grazing: Direct and Indirect effects:

-No additional effects were identified beyond those described in the allotment-wide discussion above.

#### Alternative 2 Current Management: Direct and Indirect effects:

-No additional effects were identified beyond those described in the allotment-wide discussion above.

#### Alternative 3 Adaptive management: Direct and Indirect effects:

-Additional fence construction included as options in adaptive planning would provide opportunities for time and energy savings on the part of the permittee, and increased economic efficiency. Livestock distribution would be improved. This would add to flexibility in management and a greater likelihood of meeting the portion of Forest Plan Strategy #1 for livestock grazing that states “Strive to authorize grazing for domestic livestock that will provide stable livestock numbers and season of use.” (Revised BNF Plan page 1-8). It would also support the portion of that strategy that directs management to strive to maintain or exceed the 2004 permitted stocking level of AUMs Forest wide.

#### Cumulative effects for all alternatives:

-No additional effects were identified beyond those described in the allotment-wide discussion above.

## **Compliance with Forest Plan and Other Relevant Laws, Regulations, Policies and Plans**

Alternative 1 would be the least in compliance with the Forest Plan because AUM's would not be maintained. Alternative 3 would be the most inclined to meet Forest Plan Strategies.

## **Monitoring Recommendations**

None other than specified in Chapter 1 and Chapter 2 of DEIS.



## References

- 2210, 2230, and 2240 Files, Medicine Wheel Paintrock District, Bighorn National Forest, USDA Forest Service
- Bighorn National Forest Land and Resources Management Plan, Revised 2005
- Table 4, Potential Cumulative Effects Considerations
- Table 2-4: Adaptive Strategies
- Attachment B Permitted
- Attachment B1 Authorized Use Data
- Attachment B3 Actual Use Data
- Attachment C Pasture Sequence
  
- Bighorn National Forest Vegetation Grazing Guidelines (USDA Forest Service, Revised 2007)
- Attachment A, Rangeland Suitability analysis for Medicine Wheel Paintrock District Little Horn Watershed Allotments
- Supplement 1-2, Desired Condition for the “Big Six” Project Area
- Table 1-2, Desired Conditions and Benchmark Sites
- Table 3, Key Areas and Benchmark Sites
- Specialist Report for Rangeland Vegetation for Medicine Wheel Paintrock District Little Horn Watershed Allotments
- Rangeland Analysis and Management Training Guide, Region 2, USDA Forest Service 1996